

1. (previously presented) A charge pump supplied by a DC supply, comprising one or more accumulation capacitors that are charged during a charging cycle, and switching elements for connecting the one or more accumulation capacitors in series with the DC power supply and each other to provide an increased combined voltage during a discharge cycle, wherein at least one of the switching elements is a LVTSCR operating in snapback mode.
2. (original) A charge pump of claim 1, wherein the switching elements are controlled by a clock circuit.
3. (original) A charge pump of claim 2, wherein the charge pump is a dual stage structure wherein the switching elements comprise two LVTSCRs operating in snapback mode during the charging cycle and a commutator connecting the accumulation capacitors in series during the discharge cycle.
4. (original) A charge pump of claim 3, wherein the commutator is a PMOS transistor or a LVTSCR.
5. (previously presented) A charge pump having a pulse input signal, comprising a plurality of accumulation capacitors that are charged during a charging cycle, and switching elements for connecting the accumulation capacitors in parallel during the charging cycle and in series during a discharge cycle to provide an increased combined voltage, wherein at least one of the switching elements is a LVTSCR operating in snapback mode.
6. (original) A charge pump of claim 5, wherein the switching elements are controlled by a clock circuit.
7. (original) A charge pump of claim 5, wherein the switching elements make use of the changing voltage levels of the pulse input signal to turn the at least one LVTSCR on and off.
8. (previously presented) A DC-DC converter having a pulse input signal, comprising one or more accumulation capacitors that are charged during a charging cycle, an output capacitor, and

switching elements for connecting the one or more accumulation capacitors in parallel during the charging cycle and in series with each other during the discharge cycle to provide an increased combined voltage during a discharge cycle, wherein at least one of the switching elements is a LVTSCR operating in snapback mode.

9. (original) A DC-DC converter of claim 8, wherein the switching elements are controlled by a clock circuit.
10. (original) A DC-DC converter of claim 8, wherein the switching elements make use of the changing voltage levels of the pulse input signal to turn the at least one LVTSCR on and off.
11. (original) A DC-DC converter of claim 9, wherein the switching elements comprise two LVTSCRs, and wherein the charge pump includes one accumulation capacitor, and a commutator separating the accumulation capacitor and output capacitor.